

Date: Sat, 19 Jun 93 19:30:15 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #751  
To: Info-Hams

Info-Hams Digest                      Sat, 19 Jun 93                      Volume 93 : Issue 751

Today's Topics:

                    BUYING COAX (2 msgs)  
                    Callbook Server  
                    Cushcraft R7 antenna problem  
            Daily Solar Geophysical Data Broadcast for 17 June  
            Daily Solar Geophysical Data Broadcast for 18 June  
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                    ham radio stuff  
                    Heath keyer ID help  
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            New Server Online (Was: Re: callsign server update)  
                    OE's 3000A Handi-Counter Review  
                    Poor Operating Practice By 5A0RR  
                    Radio Mods  
                    TH-28 Diode settings??  
                    TH-78A mod?  
            TV vs Cable. Why Pay for a FREE Signal  
                    Yupiteru MVT 7100 in Holland?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

-----  
Date: Sat, 19 Jun 1993 12:42:30 GMT  
From: anomaly.sbs.com!kd1hz@uunet.uu.net  
Subject: BUYING COAX  
To: info-hams@ucsd.edu

jre@earldom.UUCP (Jim Earl) writes:

>I refuse to use RG-8, as it has about 6 dB loss per 100 feet at 440.  
>Someone told me 9913 has close to the same loss as 1/2" hardline, but  
>with the size/look of RG-8. It sounds like the answer to my problem.

9913 has approximately 3db of loss per 100' at 330mhz. With a 120' coax run, you're probably looking at appx. 3.5 db of loss.

MD

-----  
Date: Sat, 19 Jun 1993 14:58:55 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!usenet.ins.cwru.edu!neoucom.edu!  
wtm@network.UCSD.EDU  
Subject: BUYING COAX  
To: info-hams@ucsd.edu

Cable X-perts, Inc.  
113 McHenry Rd., suite 240  
Buffalo Grove, IL 60089-1797

Orders 800-828-3340      Tech Info 708-506-1886

Flexible 9913, IIA JKT..... .62/ft  
discounts for orders > 500 feet

It's not inexpensive, but it is good stuff

--  
Bill Mayhew            NEOUCOM Computer Services Department  
Rootstown, OH 44272-9995    USA      phone: 216-325-2511  
wtm@uhura.neoucom.edu      amateur radio 146.58: N8WED/AA

-----  
Date: Sat, 19 Jun 1993 20:07:54 GMT  
From: dxis!k2ph@uunet.uu.net  
Subject: Callbook Server  
To: info-hams@ucsd.edu

First of all, many thanks to any and all who make the callbook server work and keep it up to date. It's great to see my recent change of address in the database! :-)

One question about the format: It appears that station location no longer appears in the output, as it did automagically with the previous database. Is there some option we can set to make this information appear?

Tnx.

73,  
Bob K2PH

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| Bob Schreibermaier K2PH | UUCP:      uunet!dxis!k2ph      | Free the |
| (a.k.a. "The QRPper") | INTERNET: k2ph@dxis.monroe.pa.us | Intel   |
| Kresgeville, PA      | ICBM:      40o55'N 75o30'W      | 486     |
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Date: Fri, 18 Jun 1993 18:52:04 GMT  
From: bcstec!yunker@uunet.uu.net  
Subject: Cushcraft R7 antenna problem  
To: info-hams@ucsd.edu

I recently bought a Cushcraft R7 vertical antenna. After assembling it carefully, I put it on the air and found that the SWR on 10 meters is about 1.2 to 1.8, which is great, but on all six other bands, the SWR is 3 to 5 on the phone frequencies. I played around with the lengths of each section, and, on Cushcraft's advice, put a six inch eight turn coil in the coax at the base of the antenna.

None of this helped. The SWR is still high. Has anyone had this problem before me and solved it? Cushcraft is no help at all.

--

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*****
Steve Yunker      |
Daytime Phone (206)234-7042 |
yunker@bcstec.ca.boeing.com |
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Date: 19 Jun 93 22:50:54 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Daily Solar Geophysical Data Broadcast for 17 June  
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 168, 06/17/93  
10.7 FLUX=083.4 90-AVG=115 SSN=024 BKI=0112 1021 BAI=003  
BGND-XRAY=A6.3 FLU1=4.0E+05 FLU10=1.3E+04 PKI=1112 1222 PAI=005  
BOU-DEV=002,008,009,010,007,004,013,007 DEV-AVG=007 NT SWF=00:000  
XRAY-MAX= B2.7 @ 1958UT XRAY-MIN= A6.0 @ 2319UT XRAY-AVG= A7.8  
NEUTN-MAX= +002% @ 2255UT NEUTN-MIN= -001% @ 2210UT NEUTN-AVG= +0.3%  
PCA-MAX= +1.2DB @ 1345UT PCA-MIN= -0.4DB @ 1050UT PCA-AVG= +0.0DB  
BOUTF-MAX=55367NT @ 1315UT BOUTF-MIN=55330NT @ 1743UT BOUTF-AVG=55354NT  
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+080,+000,+000  
GOES6-MAX=P:+130NT@ 1437UT GOES6-MIN=N:-068NT@ 2311UT G6-AVG=+104,-017,-043  
FLUXFCST=STD:085,090,090;SESC:085,090,090 BAI/PAI-FCST=005,005,005/010,010,010  
KFCST=1123 2111 1123 2111 27DAY-AP=004,005 27DAY-KP=1011 1211 1111 1222  
WARNINGS=  
ALERTS=  
!!END-DATA!!

NOTE: The Effective Sunspot Number for 16 JUN 93 was 57.3.  
The Full Kp Indices for 16 JUN 93 are: 1+ 1o 2+ 2- 1+ 2- 1o 1-

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Date: 20 Jun 93 01:06:14 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Daily Solar Geophysical Data Broadcast for 18 June  
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 169, 06/18/93  
10.7 FLUX=084.7 90-AVG=114 SSN=011 BKI=1000 1212 BAI=002  
BGND-XRAY=A6.3 FLU1=4.6E+05 FLU10=1.2E+04 PKI=1010 1112 PAI=002  
BOU-DEV=006,003,002,002,\*\*\*,\*\*\*,\*\*\*,010 DEV-AVG=005 NT SWF=00:000  
XRAY-MAX= B3.8 @ 1508UT XRAY-MIN= A5.7 @ 1935UT XRAY-AVG= A9.0  
NEUTN-MAX= +003% @ 1210UT NEUTN-MIN= -001% @ 2330UT NEUTN-AVG= +0.6%  
PCA-MAX= +0.2DB @ 2145UT PCA-MIN= -0.4DB @ 1220UT PCA-AVG= -0.0DB  
BOUTF-MAX=55370NT @ 1347UT BOUTF-MIN=55338NT @ 1938UT BOUTF-AVG=55357NT  
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+083,+000,+000  
GOES6-MAX=P:+128NT@ 1656UT GOES6-MIN=N:-066NT@ 0002UT G6-AVG=+108,-015,-042  
FLUXFCST=STD:090,090,095;SESC:090,090,095 BAI/PAI-FCST=005,005,005/010,010,010  
KFCST=1123 2111 1123 2111 27DAY-AP=005,004 27DAY-KP=1111 1222 1111 1121  
WARNINGS=  
ALERTS=  
!!END-DATA!!

NOTE: The Effective Sunspot Number for 17 JUN 93 was 57.0.  
The Full Kp Indices for 17 JUN 93 are: 1- 1- 1+ 2- 1+ 2- 2o 2-

-----  
Date: 20 Jun 93 02:24:03 GMT

From: news-mail-gateway@ucsd.edu  
Subject: Daily Solar Geophysical Data Broadcast for 19 June  
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 170, 06/19/93  
10.7 FLUX=086.0 90-AVG=114 SSN=025 BKI=0221 0202 BAI=003  
BGND-XRAY=A6.5 FLU1=3.2E+05 FLU10=1.3E+04 PKI=1221 2221 PAI=005  
BOU-DEV=003,013,018,007,002,017,002,010 DEV-AVG=009 NT SWF=00:000  
XRAY-MAX= C5.1 @ 2349UT XRAY-MIN= A5.7 @ 1434UT XRAY-AVG= B1.5  
NEUTN-MAX= +002% @ 0930UT NEUTN-MIN= -002% @ 1450UT NEUTN-AVG= +0.1%  
PCA-MAX= +0.1DB @ 1800UT PCA-MIN= -0.4DB @ 0300UT PCA-AVG= -0.0DB  
BOUTF-MAX=55375NT @ 2341UT BOUTF-MIN=55329NT @ 1721UT BOUTF-AVG=55356NT  
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+075,+000,+000  
GOES6-MAX=P:+126NT@ 1615UT GOES6-MIN=N:-064NT@ 2351UT G6-AVG=+100,-016,-044  
FLUXFCST=STD:090,095,100;SESC:090,095,100 BAI/PAI-FCST=005,005,005/010,010,010  
KFCST=2223 3223 2223 3223 27DAY-AP=004,003 27DAY-KP=1111 1121 0021 1111  
WARNINGS=\*SWF  
ALERTS=\*\*SWEEP:II=1@0024-0041UTC;\*\*SWEEP:II=2@1903-1927UTC  
!!END-DATA!!

NOTE: The Effective Sunspot Number for 18 JUN 93 was 58.0.  
The Full Kp Indices for 18 JUN 93 are not available.

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Date: Sat, 19 Jun 93 21:19:00 -0400  
From: swrinde!gatech!howland.reston.ans.net!darwin.sura.net!uvaarpa!pplace!  
pat.wilson@network.UCSD.EDU  
Subject: ham radio stuff  
To: info-hams@ucsd.edu

Is this the correct place to ask if anyone has a couple of paddles they  
would like to get rid of (errrr), make that, make available? If so,  
send mail to me.

pplace!pat.wilson@virginia.edu

Thanks, Pat wilson  
n0rdq

-----  
Date: 19 Jun 93 14:58:50 GMT  
From: olivea!isc-br!tau-ceti!comtch!opus-ovh!bmork@ames.arpa  
Subject: Heath keyer ID help  
To: info-hams@ucsd.edu

I'm looking for a keyer and came across two that were for sale.  
One is a HD-10 and one is a HD-1410. I don't have a Heathkit cataloge  
to look these up.

I remember two: One was kind of long and skinny, with a sloping top.  
It was "cream and green", with tubes on the inside. I think it had  
an external speaker. The other was smaller, about the size of a  
computer keyboard keypad section. It had a grid of numbers and other  
selections on the top and the two paddles coming out the front were,  
I think, removable.

Is my memory correct? Which model number goes with which? Is there  
even another model that I've never seen?

---

Brian Mork    Internet bmark@opus-ovh.spk.wa.us  
  . . . .    Amateur Radio ka9snf@wb7nnf.#spokn.wa.usa  
.. . . .    USMail 6006-B Eaker, Fairchild, WA 99011

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Date: 19 Jun 1993 21:10:25 GMT  
From: usc!howland.reston.ans.net!usenet.ins.cwru.edu!cleveland.Freenet.Edu!  
cs684@network.UCSD.EDU  
Subject: ICOM IC-245 Extended RX??  
To: info-hams@ucsd.edu

Has anyone ever modified one of these rigs for extended RX? I'd be interested in  
any info on the same.

--Charlie WD5GNW

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Date: Sat, 19 Jun 1993 14:38:07 GMT  
From: anomaly.sbs.com!multiop.com!phil@uunet.uu.net  
Subject: New Server Online (Was: Re: callsign server update)  
To: info-hams@ucsd.edu

Online callsign server:

Telnet to:    155.212.2.2  
Login as: hamradio

...and off you go...

To access an extensive selection of files:

ftp to: 155.212.2.2  
login as: hamfiles  
password is: hamfiles

-----  
Date: 20 Jun 93 00:11:59 GMT  
From: olivea!isc-br!tau-ceti!comtch!opus-ovh!bmork@ames.arpa  
Subject: OE's 3000A Handi-Counter Review  
To: info-hams@ucsd.edu

OptoElectronics 3000A Product Review - Internet - 18 June 1993  
Copyright (c) 1993 Brian Mork

The standard model costs \$279 + \$10 S&H => \$289, available only direct from the manufacturer in Florida. Money well spent? Read on!

#### >>> ABSTRACT

This 10Hz-3GHz feature-laden counter/timer/frequency meter could be a good addition to your shack if you don't have the functionality yet. There are some disallowed configurations that give you less than you may think if you casually read the laundry list of features. The standard model is the best buy. Assembly could be given more care and input specifications need more attention.

#### >>> CONSTRUCTION

The case is an extruded U-channel of aluminum with a flat top plate and end plates. The end plates screw into the U-channel with four screws, one of which is a machine screw. This one is by the A input, apparently designed to provide a better "bite" into an interior copper shielding plate around the A input.

A single 9.2cm x 12.6cm circuit board lies under the faceplate, directly mounting the three buttons and six slide switches, which, in turn, poke through the front plate. A piggyback (piggyfront?) board holds the LCD display. There are two main chips--the OE10 vaulted in Optoelectronic's marketing literature and an SC87C51. My 8751 is labeled M1.3000A 5.20.93 VER 2.1 with a little sticky label. The two main chips and a transformer on the board have a white chalky substance around them as if they were hand soldered and the flux vapors weren't cleaned off. Hope it doesn't corrode. Probably 200 additional components, mostly surface mounted, also occupy the circuit board.

The six NiCad batteries are stuck to the back shell (double sided tape?). The two battery wires terminate on the circuit board with a separable connector. The batteries' weight and the solid aluminum case give the unit a solid feel. Neither the wall-wart charging unit or the 3000A it-

self have a charging light. For the extra resistor and LED, I would like one. Too many times I've had some master switch, wall switch or loose plug inadvertently negate my effort to charge batteries. And when do you find out? When you needed the unit to be charged.

There are three plastic sheets stuck on the external top and face of the unit. My top piece was peeling off slightly. The front bottom one was crooked enough to let Button 2 not bounce back up. Slight trimming fixed that. I can't tell if the white lettering is applied on top of the plastic or behind the plastic. I hope it's behind so that they don't wear off. All the aluminum is painted black --not drippy, but it has the appearance of thick enamel. Personally, I would much rather have black anodized so there would be no possibility of chipping paint.

#### >>> OWNER'S MANUAL

It's five sheets of photocopied 8-1/2" x 11", printed in landscape mode and folded in half. It's short, but operation of the 3000A is easy, so maybe a lot isn't needed. I would propose inclusion of a few diagrams and tables rather than all linear text description. Included in the manual are:

Features description.....	2 pages
Specifications.....	1 page
Operation.....	2 pages
Data Interface.....	2 pages
Block schematic.....	2 pages
Operation hints.....	4 pages
Battery & Power.....	1 page
Calibration.....	1 page
Warrantee.....	1 page
Service & Return.....	1 page

A loose sheet of paper describes how to turn on the backlight option.

I wanted to know what I could plug into this meter. Nowhere in the specs or owner's manual are the max input ratings. After talking with the factory (toll call is small compared to \$300, but still is annoying), I find the 1 Mohm inputs can handle a maximum of 50V. That's combining the peak AC & DC component. It would seem that this has to accept negative voltages, too (because it accepts ambient RF relative to ground), but that's not yet clear. The Model 3000 specified 100VRMS as the maximum. More on this later. Anyhow, I feel good about plugging in TTL.

DON'T plug TTL into the inputs if the 50 ohm switch is selected! More problematic, be sure you \*unplug\* it before you slide the switch to the 50 ohm position. The 50 ohm inputs (with associated visual bar graph) handle a maximum of +15dBm, limited by the MAR6 amplifier. That's only 31.7 mW, or 39.8mV in a 50-ohm system. However, if this is true, why is



the \*minimum\* voltage (sensitivity) listed as 0.3 - 60.0 mVolt, depending on frequency range? The manual deprives me of information I need to use my meter properly.

For now, I would suggest making no electrical connections to the 50 ohm amps. Only antenna type inputs should be used when the 50 ohm amps are selected. I've wrapped an 8" wire (snake like) around cordless phone antennas, and that works ok, but even this would be \*way\* to much for a 100W HF transmitter. Be careful and use the bargraph. Full scale bar graph ranges from 2-4 mVolt, depending on the frequency.

#### >>> OPERATION

Some non-obvious combinations of functions and inputs is the order of the day. This is kind of weird, but is intentional to give you the best sensitivity possible, using a number of specialized input amps.

Turn it on, holding down a Button 2 if you want the optional backlight to come on. Select either 1 Mohm (Hi-Z) or 50 ohm (Lo-Z) amplifiers.

If you select Hi-Z inputs, Button 1 selects either/both A and B inputs. Button 2 rotates between FREQUENCY, PERIOD, INTERVAL, and RATIO. Button 3 selects the gate time (resolution). Input A measures only 10Hz - 50MHz, with sensitivity of a few tens of mVolts. Input B measures only 10Hz - 10MHz, with a sensitivity of better than ten mVolts.

If you select Lo-Z inputs, a signal strength bar-graph indication automatically appears and you must select one of three input amps:

Input A only, from 10MHz - 220MHz (0.3 to 5mV sensitivity)

Input A only, from ~40MHz - 880MHz (div by 4 prescaler)

Input B only, from 500MHz - 3000MHz (new amp, div by 16 prescaler)

In parallel with all the above, two switches let you operate in either of four modes. I'll call them modes 00,01,10, and 11, representing whether FILTER and CAPTURE, respectively, are off (0) or on (1).

00 (FILTER off, CAPTURE off) Operates as described above. This is the single mode of the original Model 3000. Meter shows updated values even if it's counting noise. Gate light blinks continuously.

10 (FILTER on, CAPTURE off) PERIOD, INTERVAL and RATIO are disabled. Computer logic looks for meaningful oscillations, providing a new frequency value only if a legitimate count is acquired. A higher level of filtering can be selected by holding down Button 3 during power up.

11 (FILTER on, CAPTURE on) Same as mode 10 except nothing happens

until you arm the system by pressing Button 2. Once you do this, the word "frequency" flashes on the display until a legitimate count is snagged. A three-memory buffer (the display plus two more) keeps previous values. They are referred to as X, A, and B. X contains the most recent, A the second most recent, and B the third most recent. When a fourth value is snagged, the value in B is lost.

01 (FILTER off, CAPTURE on) In this mode, no measurements are taken. Button 2 rotates between the three memories recorded in mode 11.

#### >>> PRODUCT SUPPORT

In some sense, there's not much to support. The meter either works or it doesn't. Operation is very straight forward. I don't call to harass service personnel and I \*do\* read the manuals first. I did call to find out about the input characteristics as discussed above and was, well, not impressed.

Female answers and I ask for service or tech help. After 2 minutes, the line drops dead. I call back. Same female passes me on to Ray quickly this time. I ask Ray about input specs. He says that, yes indeed, that has been inadvertently left out of the manual. Stand by. Three minutes. Ray comes back with info. The 1 Mohm inputs are "plus 50 volt AC plus DC", the 50 ohm inputs are "plus 15 dBm." Yes, that's what I wanted! Follow up: What do you mean by 50v AC+DC?" Hmmm. He didn't know; that's what the engineer told him. Ok. Is it capacitively coupled? Uhh.. the inputs go right into a "MAR6 amplifier." Could you please send me a copy of just the front end prior to the MAR6 amps? Pause... "Well, there's a capacitor that goes to ground." Yes, that's the kind of info I want. What size? Maybe a pf or two? "It's a 50v electrolytic." Eeee wrong person. Would he send me just a copy of the front end schematic? "No, we don't have anything like that I could send you." Ok, well thanks anyhow. Bye.

In retrospect (and perhaps yet), I should have asked (will ask) for the "engineer" who was sourcing this information. Are inputs capacitively coupled? With what size, type & rating capacitor? What in line or parallel resistors (s,t, & r)? What bypass caps, s,t & r? I'll write a letter and hope for more thought out answers from the engineer.

#### >>> REAL LIFE

I have two regimes of interest for which I want this counter. The first is modem and ultrasonic work in the kHz to 100kHz range. The second is radio VFO work, requiring MHz up to GHz. I characterized the 3000A with a 20Hz - 1MHz function generator and then with my Yaesu 757GX/Vectronics VC300DLP combo.

--- low frequency ---

For the <1MHz work, I stuck with the Hi-Z inputs in order to be able to directly connect to the circuit I'm working on. I have a 1MHz TXCO standard in my shack that has an output floating on the back side of a little toroid transformer. It accepts TTL and gives out approximately +-0.5v into my 500kohm load (3000A and O'scope in parallel). My 1MHz output shows up as a stable 6.00 Mhz on the 3000A. What?! Yes. Regardless of the filter selection (none, medium, or full), six megahertz kept being displayed. The waveform was not symmetric, I'll give that much, but it was very stable and clean from other high frequency hash. It looked sort of like this:

<pre>         \        \ 0 V___  --      --                          - .    . --- </pre>	<p>The waveform stayed the same regardless of whether the 3000A was hooked up. The 3000A counted the same regardless of whether the o'scope was hooked up. P-P voltage was 1.5v.</p>
--	--

The 1MHz output from my TXCO was a square wave ranging between 0 and 2 volts. Regardless of the 3000A filter selection, it showed a frequency of 3.0 MHz.

I fired up the variable freq / variable amplitude function generator and o'scope combination. The generator went to the scope with a BNC T-tap half way that plugged into the 3000A.

Using the A input, I needed incredulously large amplitudes--WAY above the specified <20mV. Using the B input was even worse. The procedure used was to start at about 100mV and go down first. If a stable count held, I reduced the PP voltage until spuratic readings were obtained. If 100mV was giving spuratic or known-to-be-wrong numbers, I turned the amplitude up until a stable reading was obtained. The resultant measured PP voltages:

Frequency	Input A	Input B
20Hz	2V (0.78vRMS)	*
200Hz	1V	*
350Hz	0.6v	*
60KHz	50mV	4V
500KHz	<10mV	1V

Square wave counting was similar. For instance, 2V PP was needed at 10KHz to get a good count with Input A. In all cases, the scope showed clean signals with no high frequency hash. Asterisks in the above table indicate I never was able to get a good count.

I own a PK232 radio modem and decided to see if the meter was good enough to tune the audio tones. With full output from the PK232 (about 0.5v PP on the scope, giving 140mV RMS on a Fluke DVM good to 10KHz), I stuck the tones into Input A and Input B with Hi-Z amps selected. The 2200Hz tone

showed as 2265+-5Hz and 23KHz, respectively. The 1200Hz tone showed as 1820+-15 and 31KHz, respectively. No, I did not adjust the PK232.

--- high frequency ---

My RF test goal was simple. How accurate is my 757GX VFO? Working near 10MHz, the Lo-Z A input (only one suitable for this measurement) has an advertised sensitivity of <5mV. With a 12" dangling wire near the coax out the back of the radio, the counter was totally dominated with local FM radio stations. It particularly liked one hovering around 104MHz. Later tests 25 miles across town again showed that with a wire pigtail antenna, it was being dominated with this station. I bought an RS15-577B FM trap and put it in line. No difference.

Finally I resorted back to the Hi-Z inputs. At this point I was trying to determine the electrical length of some coax I have (see page 74 of the June 93 QST). A 1/4 wavelength of coax is terminated with a short circuit (I used one end of an alligator clip), and this high current node is the point I was trying to pickup the RF. Twenty turns of prototype wire around a pencil stepped up the voltage enough for the meter to register stable counts when the pickup coil was positioned near the end of the coax shorting alligator clip.

Attempts to do PERIOD, INTERVAL, and RATIO measurements were put on hold until I can get answer (or a in-spec meter?) to fix the Hi-Z input sensitivity problem.

>>> OPTIONS

You can buy a precision (0.2ppm vs 1.0ppm) timebase for an extra \$100.

You can buy a electroluminescent backlight for an extra \$45

--- time base ---

There are two reasons why I did not want to buy the precision time-base option. One is because a RATIO mode is provided and I already have a precision 10MHz TTL oscillator scavenged from an old LORAN navigation board. 10MHz also happens to be the maximum frequency B-input accepted in the ratio mode (all ratios are A/B). What a coincidence. Works for me!

The second reason is simply that the 1ppm timebase is specified to age at a rate of 1ppm/year. A 0.2 ppm option would be degraded to the 1.0ppm option in only about 10 weeks. In any case, I usually don't need to know the last 2 Hz on a 100000000 Hz signal.

--- backlight ---

When it's on, I can hear a switching circuit bringing up a high voltage for the luminescent display. It turns off after 10 seconds of inactivity and comes on again when some button is pressed or frequency is acquired.

It looks good. Worth \$45? Not in my opinion. The native display is plenty readable and the extra light actually makes reading it harder from angles "above" the counter.

>>> GOTCHAS

The serial interface is unidirectional. You send it a CR and it sends back 10 digits and a decimal point, in ASCII, 2400bps, 8 bits, no parity, 1 stop bit. It only works in FREQ mode. It provides only the most recent number, with no indication of whether this is another sample or the same number it just sent you after your last request. The interface can sink 1.6mA and source 0.06 mA.

Excellent amplifier sensitivity isn't everything. For decent counting, the signal you're monitoring must exceed the noise (combination of \*all\* other RF signals in the bandpass of the selected amp) floor by 10-15dB. Specified sensitivity ranges from -27dBm to +19dBm. The input amp is limited to +15dBm. Ambient noise, including FM stations hovers about -11dBm. Play with those numbers and you'll see that amplitude for a good count ranges from non-existent to an 11dBm window. Try to measure a cordless phone near your transmitter or computer monitor? Probably not. If you live near a broadcast station, good luck. Except the required +19dBm input at 3GHz with a +15dBm max rating, I don't consider these numbers a design flaw given the intentionally wide frequency range, but it definitely affects your day-to-day operation.

>>> SUMMARY

If I were to do it again, I'd skip the backlight. \$300 for a 3.5" x 5" circuit board seems a lot of money, but the counter is spec'd to do what I need it to do, plus a few options. Resolving the input problems (both the maximum ratings and a reason why my meter is so insensitive) is a must. Contact Optoelectronics: 5821 NE 14th Avenue, Ft Lauderdale, FL 33334. 800-327-5912 or 305-771-2050. FAX 305-771-2052. Makes you want to dial ..2051 and see who you get, doesn't it? :)

73, Brian Mork (Opus-OVH)

KA9SNF@wb7nnf.#spokn.wa.usa  
Internet BMORK@opus-ovh.spk.wa.us  
6006-B Eaker, Fairchild, WA 99011

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  . . .    Amateur Radio ka9snf@wb7nnf.#spokn.wa.usa  
  .. . ..    USMail 6006-B Eaker, Fairchild, WA 99011

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Date: Sun, 20 Jun 1993 01:30:00 GMT

From: usc!math.ohio-state.edu!sol.ctr.columbia.edu!news.kei.com!ub!  
acsu.buffalo.edu!ubvms.cc.buffalo.edu!v111qheg@network.UCSD.EDU

Subject: Poor Operating Practice By 5A0RR  
To: info-hams@ucsd.edu

In article <1993Jun19.005304.2836@es.dupont.com>, collinst@esvx19.es.dupont.com writes...

> [stuff abt 5A0RR listening 14.200 to 14.300]

>

>Needless to say the thousands of stations in the US and overseas  
>wiped out 20 meters from 14.150 - 14.300. There were several nets,  
>one on one QSOs and SSTV QSOs going on. But all of these were  
>drowned out by the inconsiderate DXers who didn't listen to a frequency  
>first before transmitting. This went on until about 0345Z when Romeo  
>went QRT.

Reminds me about 9D0RR.

>

>On a personal note, I have been licensed since 1978. Was very active  
>in Dxing for a couple of years then sort of gave up Amateur Radio  
>to pursue my computer hobby. I got back into HAMing about 4 years  
>ago and must say that alot of present day Amateur Radio Operators  
>know nothing of "Radio Etiquette". This is why I gave up DXing and  
>do more listening now with a few one on one QSOs. Pileups are one  
>thing, but abusive language, poor operating procedures and total  
>lack of control is another.

This has nothing to do about DXers. Most dxers are the finest ops out there. These problems arise because of the operator on the other end. The stations calling are just doing what the dx is telling them to do. If you don't go by his rules, you wont get the QSO. Therefore flame about Romeo. He could just as well listen from 14.200 to 14.210 or 14.230 to 14.240 and go by call areas only. This would help things greatly. Notice, however, that Romeo uses only a couple kc's on CW. All you anti CW folk ought to take notice. One or two calls will do it on 14.025 instead of ten or twenty on 14.230...

73,

Peter KB2NMV / W2RR  
Vice President, Westen NY DX Assoc.  
KB2NMV@KE2VW.#WNY.NY.USA.NA  
v111qheg@ubvms.cc.buffalo.edu

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Date: 20 Jun 1993 00:27:50 GMT  
From: olivea!charnel!kirk@ames.arpa  
Subject: Radio Mods  
To: info-hams@ucsd.edu

Does anyone know an FTP site, that has lots of Radio Mod's?

Also, does anyone have a dual band HT for sale?

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Date: Sat, 19 Jun 1993 14:19:44 TUR  
From: swrinde!gatech!howland.reston.ans.net!newsserver.jvnc.net!gmd.de!dearn!  
firmop11.cnusc.fr!trearn!trmetu!ucoluk@network.UCSD.EDU  
Subject: TH-28 Diode settings??  
To: info-hams@ucsd.edu

I am looking for the diode-jumper settings for the KEN TH-28. Is there  
anybody having the description/table?

sincerely

-Gokturk Ucoluk

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Date: 16 Jun 93 03:55:38 GMT  
From: prometheus!media!pharos!rock@MIMSY.CS.UMD.EDU  
Subject: TH-78A mod?  
To: info-hams@ucsd.edu

Having had my TH-78A for nearly 12 hours, I guess it's time to butcher it.  
I have instructions for removing diodes, but I hear rumors of a simpler  
mod that only requires nipping jumpers. If you have that, I'd appreciate a  
copy. Thanks!

Roger Rosner  
N3PLD

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Date: 19 Jun 93 20:35:24 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: TV vs Cable. Why Pay for a FREE Signal  
To: info-hams@ucsd.edu

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Date: 19 Jun 1993 15:38:00 GMT  
From: usc!howland.reston.ans.net!darwin.sura.net!spool.mu.edu!caen!uvaarpa!clem!

clem!news@network.UCSD.EDU  
Subject: Yupiteru MVT 7100 in Holland?  
To: info-hams@ucsd.edu

I'll be in Holland next week, does anyone know if the Yupiteru MVT 7100 is available in Ham or other shops there? I'll be in Eindhoven, specifically, most of the time, but Amsterdam is possible. And any city on the train route between is also a possibility.

Please e-mail replies, I fly out Monday afternoon!

Thanks,  
Jim  
--  
jmd@handheld.com

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Date: (null)  
From: (null)  
3 Central Kentucky broadcast stations asking cable companies to pay for signal

Three of Lexington's four broadcast TV stations took advantage of new federal regulations yesterday and asked a local cable company to give them something in exchange for the use of their signals.

One of the TV stations is wanting cash: 25 cents for each of this companies 72,000 subscribers. Another wants to negotiate but are unwilling to discuss the details. and the 3rd, a FOX affiliate, wants to deal also. If the cable company will carry a new cable channel being developed by FOX, it won't ask for compensation.

The cable company responded to the request by saying: "We have no intention of paying them anything." said program director Patrick Mellon from the company's Norfolk, VA., offices. "The essential issue is whether cable subscribers should have to pay for what non-cable subscribers receive for free."

This one cable company has told broadcasters in other cities where it operates that it will drop their stations rather than pay compensation.

My local cable company is receiving simular requests from the Lexington broadcasters.

Under the regulations, which are part of the cable TV reform law passed by Congress last year, cable operators and TV stations have until October 6 to work out individual agreements. If no agreement is reached the cable companies could:



1. Drop the stations from its lineup and give its subscribers manual switches so they could change back and forth between cable and broadcast TV.

2. Pay whatever fees are requested and at some later date add those fees to subscribers' bills. (There is confusion over whether the law will allow those fees to be passed along.)

3. Absorb the costs, which some operators refuse to do.

The cable operators and the broadcasters all agree that severing the ties between broadcast stations and cable would be a "lose-lose" situation.

My view on this is for all to contact your local cable company and tell them that you are not willing to pay for the signal that you can receive for free and that you would be willing to drop the broadcasters or drop the cable from your home if you have to pay for their service also.

Tim Wright KD4OVM

BITNET: WRIGHT@morekypr.BITNET

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End of Info-Hams Digest V93 #751

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